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# Guide to Test Interpretation



Indiana Department of Education

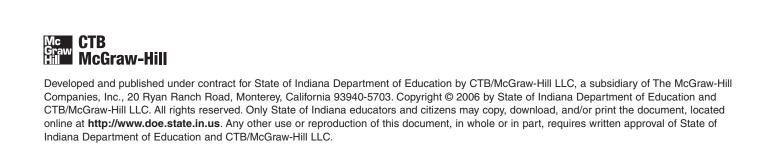
**GQE – First Edition** 

Fall 2006

School Year 2006-2007







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# A Message from Dr. Suellen Reed

December 2006

### Dear Educators:

The *Guide to Test Interpretation* is designed to help you evaluate *ISTEP+* results, explain the results to parents, and evaluate local program offerings based upon *ISTEP+* results. At the individual student level, *ISTEP+* results should be used to identify students' strengths and weaknesses in English and mathematics. At building and corporation levels, the reports should be used to evaluate local curriculum choices and the instructional strategies that are employed by teachers in classrooms.

In addition, the results can help you assess the effectiveness of local program offerings as they relate to remediation and prevention activities in the areas of English and mathematics. The information the results provide can be very valuable in your efforts to build stronger connections between curriculum, instruction, and assessments.

Now, more than ever, with the adoption of new, more rigorous standards in the areas of English/language arts and mathematics, it is critical that test results be used responsibly with the goal of helping each child achieve his or her full academic potential. I urge you to work within your school community to help increase the level of understanding and knowledge about test results and the importance they have to individual students and the K–12 education system.

The new education accountability system (P.L. 221) will emphasize test scores and other data measurements more than ever in Indiana's history. I urge each of you to analyze *ISTEP+* results carefully and to act in a proactive manner as we all work to build upon the many areas of improvement we have gained over the past several years.

Sincerely,

Dr. Suellen Reed

Superintendent of Public Instruction

Dr. Suellen Reed

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# **Understanding ISTEP+Test Results**

This guide will help you understand *ISTEP+* test results and report forms more clearly and, using those results, provide educational opportunities for students more effectively. The guide will also help you be better prepared to answer questions from parents, students, and other members of the educational community regarding *ISTEP+* results. Toward this end, a Sample Letter to Parents specific to the GQE – First Edition is included on page 49 for your use.

# ISTEP+ Report Forms

Each *ISTEP+* report is designed to clearly present the most useful information for you and for your discussions with parents. The audience for each report and the number of copies provided are listed below.

ISTEP+ Report Information			
Report	Number of Copies		
For Teachers			
Student Report	3		
Proficiency Roster	1		
Class Essential Skills Report	1		
Undetermined Status Roster	2		
For School Administrators			
Proficiency Roster	1		
Essential Skills Summary (corporation)	1		
School Proficiency Performance Summary	1		
GQE Required Retest List	1		
Disaggregation Summary Report	1		
Graduation Test Labels	1		
Applied Skills Frequency Distribution	1		
For Corporation Administrators			
Proficiency Roster (school)	1		
Essential Skills Summary (corporation)	1		
Group Essential Skills Summary (corporation)	2		
Disaggregation Summary Report (school)	1		
Disaggregation Summary Report (corporation)	2		
Applied Skills Frequency Distribution (school)	1		
Applied Skills Frequency Distribution (corporation)	1		
Undetermined Status Roster (school)	1		
Academic Standards Frequency Distribution	1		

Students are administered the sections of both the GQE – First Edition Basic Skills test and the Applied Skills test that relate to the content areas (English/language arts and/or mathematics) in which they are testing.

**Note:** Failure to return both the completed Basic Skills and Applied Skills documents will result in a student receiving a status of "Undetermined" on the GQE – First Edition.

Copies of student answers to the constructed-response (open-ended) items, as they appeared in the Applied Skills test books, will be returned to teachers to assist them in reviewing the students' performance. Teachers may use these papers, in conjunction with information in the *Teacher's Scoring Guides*, to further evaluate each student's strengths and needs. Three copies of the Student Report are included in the score report package. One copy is in a folder marked Image Print. This copy is to be used with the student's imaged responses to the Applied Skills Assessment.

The *ISTEP+* score reports are packaged by school and corporation, and they are shrink-wrapped to prevent damage during handling. Student reports for Braille tests are shipped separately.

Before you can interpret and apply the information in the reports, you must understand the meaning of the scores presented. If you are unfamiliar with *ISTEP+* or the testing and scoring terms, please read the next two sections carefully. If you need just a quick review, skim the glossary specific to the GQE – First Edition beginning on page 46.

# Sample Letter to Parents

To help teachers explain the *ISTEP+* reports to parents, a Sample Letter to Parents specific to the GQE – First Edition is provided on page 49. You may duplicate or edit the letter to make it appropriate for your use.

# **Report Labeling**

Score reports for the GQE – First Edition will have margin labels reading "GQE 1st Edition."

# The *ISTEP+* Testing Program for the GQE – First Edition

# What can you learn from *ISTEP+*?

Taxpayers, parents, and educators ask many questions about instructional programs as Indiana strives to build a brighter future by providing the best possible education for its young people. Questions such as the following are commonly asked:

"Are all of our students acquiring the skills they need to succeed?"

"What kind of individual instruction would help my child?"

*ISTEP+* provides information that will help you answer such questions and support the instructional choices you make for your students. *ISTEP+* reports can quickly show you the following:

- To what extent an individual student has mastered Essential Skills in the English/language arts and mathematics content areas.
- To what extent the students in your classroom, school, and corporation, as a group, are attaining mastery of Essential Skills.
- Where the students in your class, school, or corporation stand relative to the two performance levels established by the State Board of Education. (See page 8 for more information about performance levels.)

Remember, *ISTEP+* provides only one piece of information that educators should be using when making decisions about students.

# The GQE – First Edition

The GQE – First Edition is a criterion-referenced test. It consists of items that assess a student's performance with respect to particular criteria—in this case, to the Indiana Academic Standards established by the State Board of Education.

The test does not provide norm-referenced information; that is, it does not compare the performance of Indiana students with that of students across the nation.

# **Criterion-Referenced Scores**

Criterion-referenced scores indicate where a student stands in relation to the established Indiana Academic Standards, as well as in relation to Indiana's Essential Skills. The most valuable application of criterion-referenced information is to identify a student's strengths and needs in order to plan appropriate instruction.

Criterion-referenced scores are presented by Essential Skills within each content area, as follows:

Criterion-Referenced Score Categories					
Domain	English/language arts	Mathematics			
Essential Skills	10.1 Construct Meaning	10.1–3 Probsolv/Comm/Reas			
	10.2 Compare/Predict	10.4 Algebra			
	:	•			
	•	•			

# Performance Levels

To promote student academic achievement, the State Board of Education has adopted challenging standards. A student who scores AT or ABOVE the Indiana Academic Standards (Pass) in English/language arts or mathematics demonstrates mastery of these standards. A student who scores BELOW the Indiana Academic Standards (Did Not Pass) may require remedial assistance in order to pass the GQE – First Edition.

In addition, an "Undetermined" category is reported for any student whose *ISTEP+* scores for English/language arts and/or mathematics are incomplete (i.e., all or part of a test was not taken or was considered invalid by the examiner). The phrase "did not retest" is used to identify content areas not attempted by students during the GQE – First Edition.

# **Essential Skills Scores**

Indiana's Essential Skills are listed by subject on the Student Report, the Class Essential Skills Report, the Essential Skills Summary, and the Group Essential Skills Summary.

The Indiana Performance Index (IPI) is used to indicate a student's performance on the Essential Skills. This is a statistical value that reflects the number of items a student would have answered correctly if the student had responded to 100 items like the ones actually on the test. It is a better measure of the student's performance than a simple percentage of correct answers to a small number of questions.

### **Criterion-Referenced Scores**

On the Student Report, next to each Essential Skill, the Student Skill Score is shown, along with the Passing Skill Score for a student at the standard and the Difference between the two scores.

The Class Essential Skills Report indicates whether students have mastered each Essential Skill. Symbols appear on this report indicating: 1) mastery, 2) nonmastery, 3) too few score points to assess mastery conclusively, and 4) any subtest omitted or invalid. Mastery of an Essential Skill indicates that the student achieved an IPI that is equal to or greater than the IPI for a student at the standard.

The corporation Essential Skills Summary provides a summary of student performance for all schools in the corporation.

# Item Response Theory

Item Response Theory (IRT) refers to the theory underlying a family of statistical models. These statistical models analyze the data obtained from test questions, or items. For the *ISTEP+* tests, two models are used. One is used for the multiple-choice items, and another is used for the constructed-response items.

The two models are used in combination with test data to characterize items and generate student scale scores. Both models use the data to determine how difficult each item is and how well each item accurately identifies students who do and do not have the skill being tested by the item. The multiple-choice model also describes the degree to which students can guess the correct answer to each item.

# **Pattern Scoring**

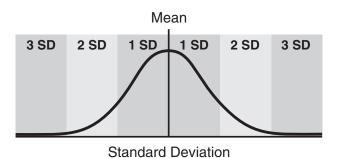
The statistical characteristics of the items can affect a student's total test score (scale score). This is particularly true with *ISTEP+* because it is pattern scored. Pattern scoring incorporates information from items using the IRT model. In contrast, raw scoring or number-correct scoring simply notes whether or not the student answered the item correctly. Both pattern scores and raw scores can be considered ability scores used to represent a student's ability level. To illustrate the differences between pattern scoring and raw scoring, consider two students, Student 1 and Student 2, who both correctly answer 20 items. Student 1 answers the 20 most difficult items, while Student 2 answers the 20 easiest. With raw scoring, both students receive the same raw (ability) score, indicating both students have the same "ability," and the highest raw score possible is equal to the total number of items on a test. In contrast, when the pattern of the items answered correctly is taken into account—that is, when the information about the difficulty of the items (among other item characteristics) is considered—Student 1 rightly receives a higher ability score.

# Mean and Median Scores

On *ISTEP+* reports, summary information for a group (such as a class) is often presented using mean or median scores. The mean is the average score obtained by adding together all scores in the group and dividing by the number of students in the group. The median is the middle score. (Fifty percent of the scores fall below it.)

# **Standard Deviation**

The standard deviation (SD) indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within two SDs of the mean. In almost any shaped distribution, all scores will be within five SDs of the mean score.



**Note:** All sample reports shown in this guide contain simulated student data only.

# **Student Report**

The Student Report presents test information to parents in ways that are easy to understand. It encourages them to discuss their child's strengths and needs and helps them become more involved in the child's learning process. Page 1 of the Student Report contains student performance data for English/language arts and mathematics. Page 2 contains the student's Applied Skills results. Three copies of this report are provided. Two copies are for school use and one copy is for the parent(s).

### **Criterion-Referenced Information**

The top section of this report, called "Indiana Academic Standards," reports the student's scale scores in English/language arts and mathematics, and it relates these scores to the Indiana Academic Standards established by the State Board of Education. (See page 8 for a definition of the performance levels for the Indiana Academic Standards.)

The center section lists the Essential Skills measured by the GQE – First Edition. (See page 46 for a definition of *Essential Skills*.) Next to each skill, the student's academic performance is indicated by the Student Skill Score, along with the Passing Skill Score for a student at the standard, and the difference between the two scores.

# **Sample Student Report (Front)**

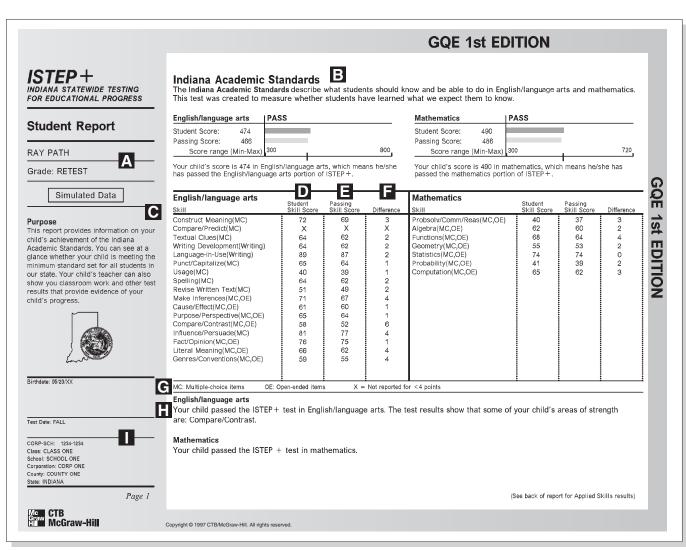
The sample Student Report presents results for Ray Path, a retest student who took the *ISTEP+* achievement test. The top section of the report describes Ray's performance as measured against the Indiana Academic Standards, and it shows his achievement as a scale score compared with the standard score adopted by the Board of Education.

On the same report, the tenth-grade Essential Skills are listed. Reading to the right of the first Essential Skill, Construct Meaning, you will see that Ray achieved a Student Skill Score of 72 as compared with the Passing Skill Score of 69, or 3 points higher than the Passing Skill Score.

Ray's English/language arts total score is reported in two ways:

- a scale score of 474 (see "Indiana Academic Standards" in area B) and
- the Student Skill Score for each Essential Skill (see area C).

This scale score indicates that Ray did pass the Indiana Academic Standards in English/language arts. His score of 490 in mathematics means he also passed the Indiana Academic Standards for that content area.



# Highlights of the Student Report (Front)

- A Identifies the student's name and grade.
- **B** Explains the student's performance relative to the Indiana Academic Standards established by the Board of Education.
- **C** Lists Essential Skills, grouped by content area.
- Shows the Student Skill Score that the student obtained for each Essential Skill.
- Indicates the Passing Skill Score for a student meeting the standard for this specific Essential Skill.
- Shows the difference between the Student Skill Score and the Passing Skill Score for a student meeting the standard.
- **G** Defines symbols and abbreviations used in this report.
- **H** Lists student's areas of strength and weakness.
- Indicates the test date and identifies the corporation-school number, class, school, corporation, county, and state.

# **Student Report** (Back)

The back of the Student Report lists individual student test results for each Applied Skills item by content area and test session. It provides the number of points the student earned on each item, as well as the maximum number of points possible. This report should be used in conjunction with the Teacher's Scoring Guides and the imaged student responses to help the teacher explain the scores and the scoring process. Imaged student responses will be returned to the schools in December 2006.

can find that information on our website.

email to <u>istep@doe.state.in.us</u>.

More information is available by using the ISTEP+ Hotline at 888-544-7837 (888-54-ISTEP), the Indiana Department of Education Website, www.doe.state.in.us/istep, or you can send

### **GQE 1st EDITION** ISTEP+ Student Report - Applied Skills ISTEP+ English/language arts INDIANA STATEWIDE TESTING FOR EDUCATIONAL PROGRESS Mathematics English/language arts Sess Item# - Skill 1a-Writing Development Page Numbe Page 1-Probability 2-Probsolv/Comm/Reas 1a-Writing Develope 1b-Language-in-Use Student Report 3-Computation 4-Probsolv/Comm/Reas В C D E 5-Probsolv/Comm/Reas 6-Probsolv/Comm/Reas RAY PATH 7-Algebra 8-Probsolv/Comm/Reas Grade: RETEST 9-Functions Simulated Data Mathematics Session 2 Item# - Skill English/language arts Set tem# - Skill Page Numbe Points Earned Points Possible Page Points Earned Purpose 1-Algebra 2-Probsolv/Comm/Reas 14 13 14 2-Make Inferences This report provides scoring results from 3-Probsolv/Comm/Reas 4-Statistics 5-Probsolv/Comm/Reas 6-Geometry 3-Make Inferences 4-Genres/Convention 14 15 the Applied Skills component of the ISTEP -The Applied Skills test consists of 5-Cause/Effect 6-Construct Meaning short answer and essay items. The page 7-Probsolv/Comm/Reas 8-Probsolv/Comm/Reas 7-Literal Meaning 8-Construct Meaning 17 18 18 to the original test document. 9A-Make Inferences 9B-Writing Development 9C-Language in Use Note: Please refer to the ISTEP+ Teacher's Scoring Guides for item-specific Essential Skills information (these are available at your child's school and are available on our website at www.doe.state.in.us/istep). G The Applied Skills Report tells you how your child performed on the portion of the test that requires writing an essay and answering open-ended (OE) questions. This report shows the skill the item measures, the page number of the item, how many points your child earned, and how many points were possible. For this report to be the most beneficial, you need to use it with the copy of your child's actual work. The copy of your child's work will be available at the school. Your child's teacher also can describe the kinds of extra help Birthdate: 05/20/X) your child can receive, if needed. Indiana schools are required to provide remediation for students who do not pass the academic standards. It's your responsibility as a parent to make sure your child takes advantage of these opportunities. Η If you want to see how your child's scores compare to the average scores of the state and local school corporation, you Test Date: FALL

Once you have had a chance to study both sides of this report and talk with your child about it, you may want to schedule time with your child's teacher to discuss these results.

In December, you can see the essay and open-ended responses your child has written as part of ISTEP+ and look

at actual test questions to find out more about your child's

strengths and weaknesses.

1st **EDITION** 

Points Possible

CORP SCH: 1234-1234

Class: CLASS ONE School: SCHOOL ONE Corporation: CORP ONE County: COUNTY ONE

MSM CTB Graw McGraw-Hill

Page 2

State: INDIANA

## **Sample Student Report (Back)**

The sample Student Report (Back) provides test results for Ray Path, a retest student who took the GQE – First Edition. One can observe on this simulated report, under English/language arts, Session 2, that item number 1 of this test is located on page 14 of the test book and that Ray scored zero points. The maximum possible for this item is two points.

# Highlights of the Student Report (Back)

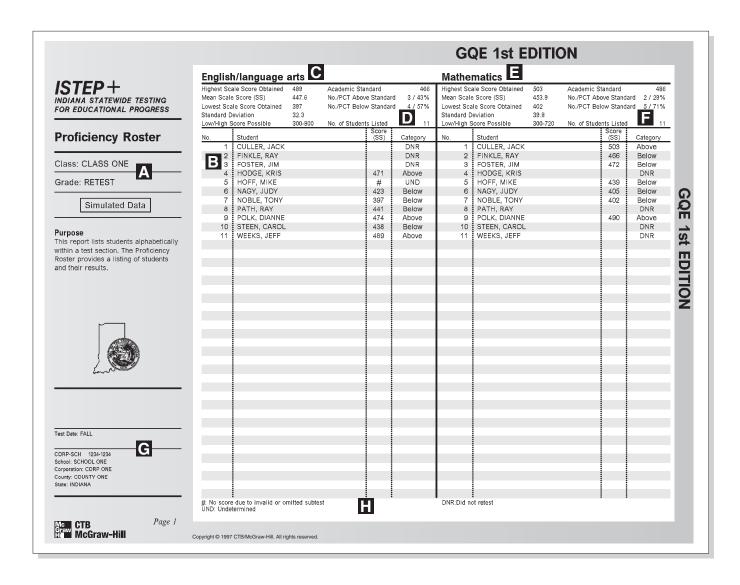
- A Identifies the student's name and grade.
- **B** Lists each item and its Essential Skill by content area and test session.
- C Indicates the page number on which the item appears in the test book.
- Presents the number of score points that the student earned for the given Applied Skills item or, if no score, the letter of the condition code.
- **E** Indicates the number of points possible for the given Applied Skills item.
- **F** If the student has condition codes, they will be explained in this section.
- **G** Provides information for parents.
- H Indicates the test date and identifies the corporation-school number, class, school, corporation, county, and state.

# **Proficiency Roster**

This report lists alphabetically all students in the class and tells the teacher how each student performed in the content areas of English/language arts and mathematics. Also shown is the scale score for each student in each of the content areas and whether the student scored above or below the performance standard.

In the upper portion of the report, summary information is given for the class as a whole. Shown for each of the two content areas are the lowest and highest scale scores obtained by the students in the group, the class average (mean scale score), the standard deviation, and the lowest and highest possible scores.

The group's performance is also compared to the academic standard to show the number and percentage of students above and below the standard.



# Highlights of the Proficiency Roster

- A Identifies the class by the teacher's name and the grade.
- **B** Lists students alphabetically within the class.
- **C** Provides English/language arts summary information for the class.
- Provides each student's scale score and performance level within the English/language arts content area.
- **E** Provides mathematics summary information for the class.
- Provides each student's scale score and performance level within the mathematics content area.
- G Indicates the test date and identifies the corporation-school number, school, corporation, county, and state.
- **H** Defines the symbols and abbreviations used in this report.

# Class Essential Skills Report

The Class Essential Skills Report presents Essential Skills information for all the students in your class. It presents mastery information for each student and summarizes the performance of the class as a whole.

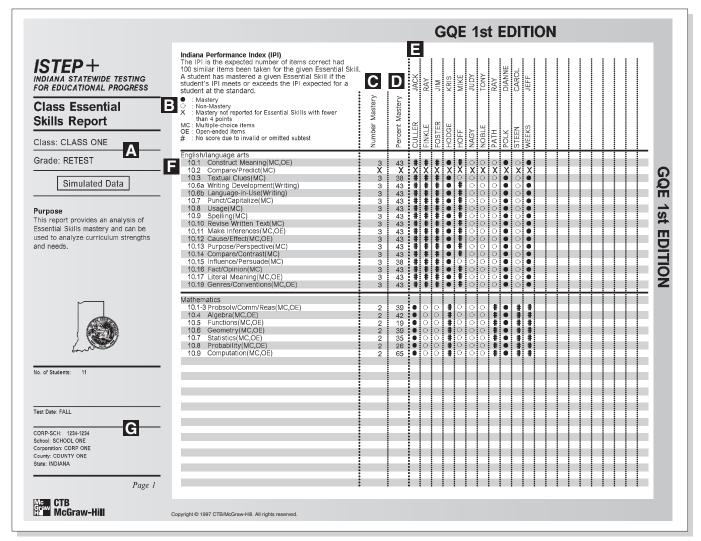
### **Essential Skills Information**

The name of each student in the class appears in alphabetical order across the top of the report. The column below the student's name presents mastery information for that student. The Essential Skills for the grade appear on the left side of the report.

To the right of each Essential Skill the following information appears:

- the number of students in the class who mastered the Essential Skill and
- the percentage of students in the class who mastered the Essential Skill.

You can use this information to identify areas in which students may need additional instruction.

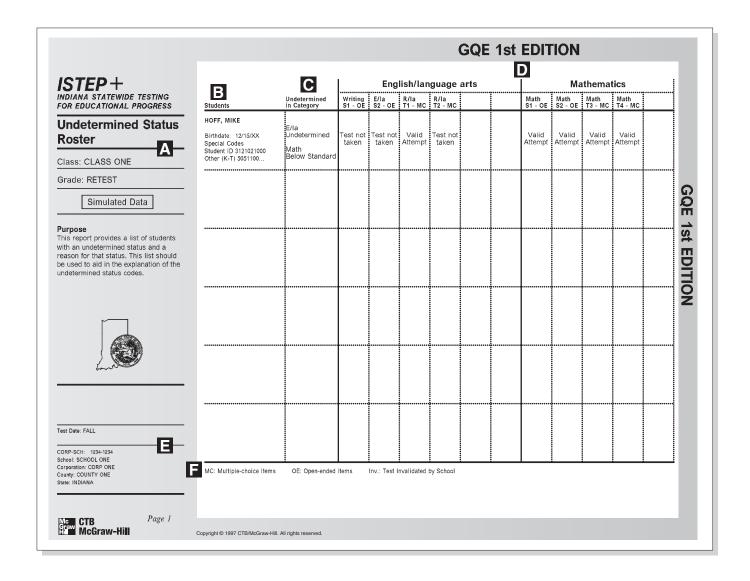


# Highlights of the Class Essential Skills Report

- A Identifies the class by the teacher's name and the grade.
- **B** Defines the symbols and abbreviations used in this report.
- **©** Shows the number of students who mastered the Essential Skill.
- **D** Shows the percentage of students who mastered the Essential Skill.
- **E** Lists students alphabetically by name from left to right.
- **E** Lists Essential Skills for the grade by content area.
- G Indicates the test date and identifies the corporation-school number, school, corporation, county, and state.

# Undetermined Status Roster

This report provides a list of all students in the class who have an "Undetermined" status. Students who fail to complete one or more subtests in English/language arts or mathematics are listed as "Undetermined." The report indicates whether the subtest was not taken or was invalidated, thus explaining the reason for the "Undetermined" status.



# Highlights of the Undetermined Status Roster

- A Identifies the class by the teacher's name and the grade.
- **B** Lists alphabetically students who have an "Undetermined" status in English/language arts and/or mathematics.
- C Indicates whether the "Undetermined" status is in English/language arts and/or mathematics.
- **D** Indicates which subtest was invalidated or not completed.
- Indicates the test date and identifies the corporation-school number, school, corporation, county, and state.
- **F** Defines abbreviations used in this report.

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# Reports for the School Administrator

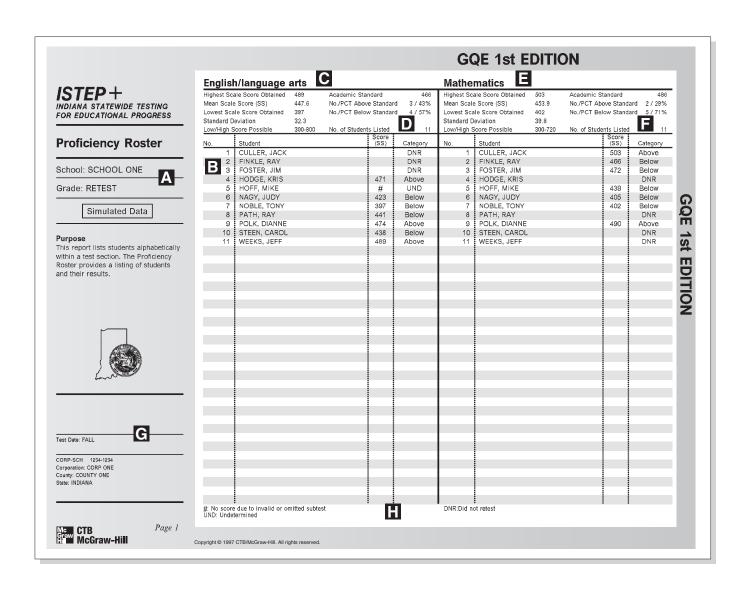
**Note:** All sample reports shown in this guide contain simulated student data only.

# **Proficiency Roster**

This report lists alphabetically all GQE – First Edition students in the school by grade and tells the principal how each student performed in the content areas of English/language arts and mathematics. Also shown is the scale score for each student in each of the content areas and whether the student scored above or below the performance standard.

In the upper portion of the report, summary information is given for the school as a whole. Shown for each of the two content areas are the lowest and highest scale scores obtained by the students in the group, class average (mean scale score), the standard deviation, and the lowest and highest possible scores.

The group's performance is also compared to the academic standard to show the number and percentage of students above and below the standard.



# Highlights of the Proficiency Roster

- A Identifies the school and grade.
- **B** Lists alphabetically students within the school for the grade tested.
- **C** Provides English/language arts summary information for the school.
- Provides each student's scale score and performance level within the English/language arts content area.
- Provides mathematics summary information for the school.
- Provides each student's scale score and performance level within the mathematics content area.
- G Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- **H** Defines the symbols and abbreviations used in this report.

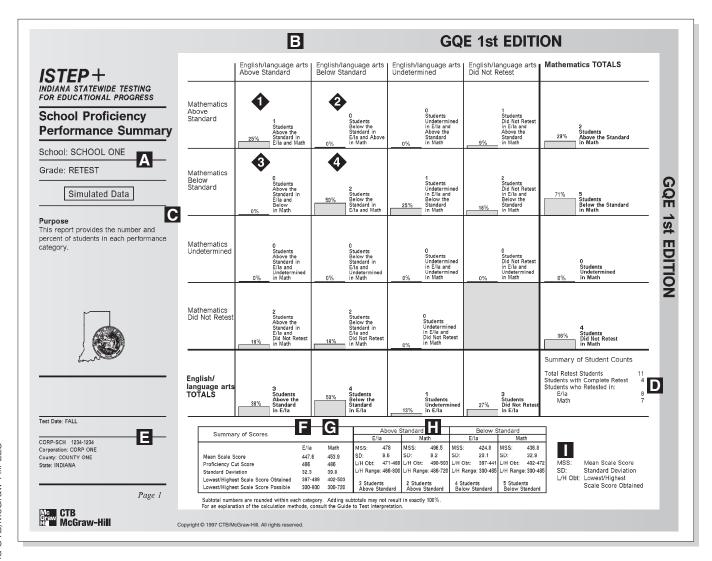
# School Proficiency Performance Summary

This report summarizes groups of students according to their performance relative to the Indiana Academic Standards (see page 8 for a definition of performance levels) in the content areas assessed by *ISTEP+*. For example, box • in the upper left-hand corner of the report includes the number and percentage of students who have obtained scores ABOVE the Indiana Academic Standards in both English/language arts and mathematics. Students tallied in box • have scored BELOW the standard in English/language arts but ABOVE the standard in mathematics. Students reported in box • have scored ABOVE the English/language arts standard but BELOW the standard in mathematics. Students reported in box • have scored BELOW the standard in both English/language arts and mathematics.

Below and to the right of the numbered boxes, the next row and column on the grid provide the numbers and percentages of students that received an "Undetermined" status. This results when a student fails to complete all tests in a given content area. The percentages for the first four boxes together with the five "Undetermined" boxes are calculated using the total number of students in these nine boxes. This total number is provided in the "Summary of Student Counts" and is labeled "Students with Complete Retest."

The "Mathematics Did Not Retest" row and the "English/language arts Did Not Retest" column provide the numbers and percentages of students that did not take the GQE – First Edition in a given content area. The percentage in any individual box in the row or column is calculated by dividing the number of students in that box by the total number of students who retested, which is provided in the "Summary of Student Counts."

The percentages in the last column, "Mathematics Totals," are calculated by adding the total number of students in the row for an individual mathematics category (Above Standard, Below Standard, or Undetermined) and dividing that total by the number of students who retested in mathematics only, which is provided in the "Summary of Student Counts" section. The percentages in the last row, "English/language arts Totals," are calculated by adding the total number of students in the column for an individual English/language arts category (Above Standard, Below Standard, or Undetermined) and dividing that total by the number of students who retested in English/language arts only (again, provided in the "Summary of Student Counts").

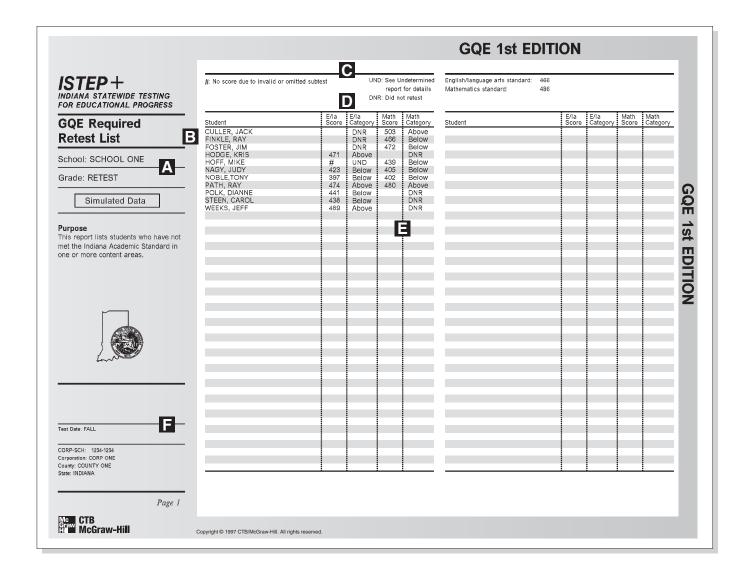


# Highlights of the School Proficiency Performance Summary

- A Identifies the school and grade.
- **B** The **columns** report Indiana Academic Standards categories for English/language arts.
- The rows report Indiana Academic Standards categories for mathematics.
- **D** Reports the number of students.
- **E** Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- **F** Provides school summary information for English/language arts.
- **G** Provides school summary information for mathematics.
- H Provides school summary scores by performance category for both English/language arts and mathematics.
- Defines the abbreviations used in this report.

# GQE Required Retest List

This report lists alphabetically those students who fell below the standard on the Spring GQE – First Edition in either English/language arts or mathematics or in both content areas. It also shows the performance category and scale score for each student in each of the content areas.

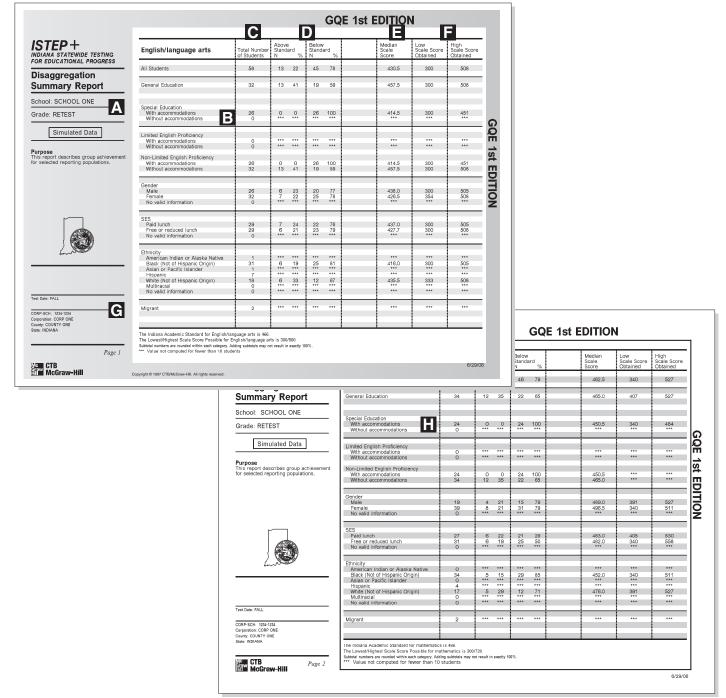


# Highlights of the GQE Required Retest List

- A Identifies the school and grade.
- **B** Lists students alphabetically within the school who need to take the GQE First Edition in one or more content areas.
- **C** Defines the symbols and abbreviations used in this report.
- Provides each student's scale score and performance level within the English/language arts content area.
- Provides each student's scale score and performance level within the mathematics content area.
- Indicates the test date and identifies the corporation-school number, corporation, county, and state.

# Disaggregation Summary Report

The Disaggregation Summary Report consists of two pages, one for English/language arts and one for mathematics. This report presents, by content area, the total number of students with scores identified as above the standard and below the standard. This information is given at the group level and describes achievement for selected reporting populations.

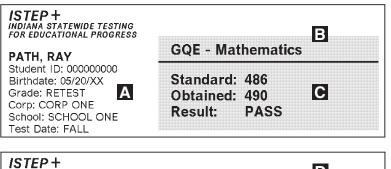


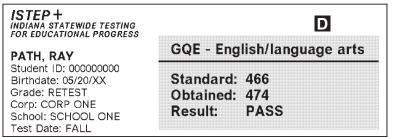
# Highlights of the Disaggregation Summary Report

- A Identifies the school and grade.
- **B** Identifies the selected reporting populations in the English/language arts content area.
- **C** Lists the total number of students tested in the school.
- Indicates the number and percentage of students above standard and below standard.
- E Indicates the median scale scores, which are not computed for groups with fewer than 10 students.
- F Indicates the lowest and highest scale scores obtained.
- **G** Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- **H** Identifies the subgroups in the mathematics content area.

# Graduation Test Labels

An individual white label for each content area is provided for each student. These student labels indicate the student's status relative to meeting the standard in English/language arts and mathematics. Separate labels are provided for each content area passed and for each content area not passed. Labels will also be provided for students who did not retest or who received an "Undetermined" status in one or both content areas.





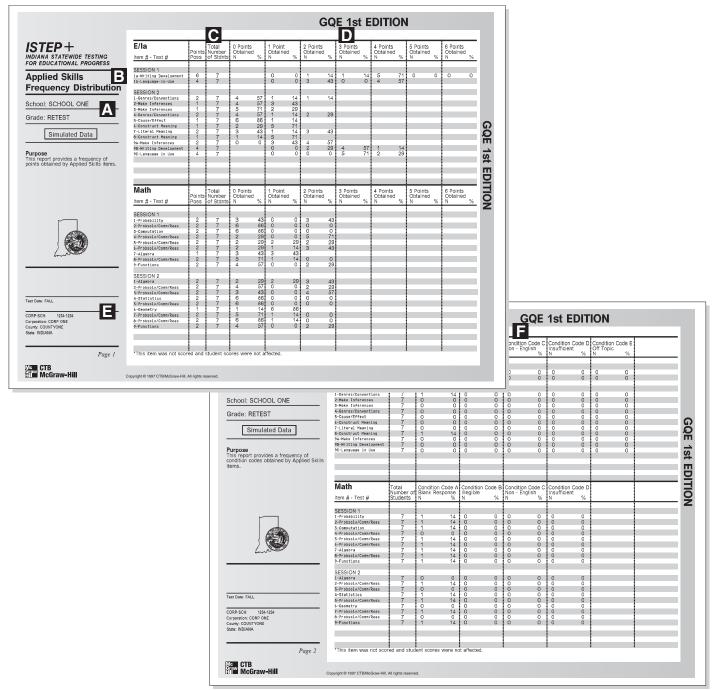
Pass label

# Highlights of the Graduation Test Labels

- A Identifies student information, grade, corporation, school, and test date.
- **B** Identifies the content area.
- C Indicates the Standard established by the Board of Education, the score obtained by the student, and the performance level achieved.
- "Retest Required" will be printed in this area and will identify whether the student needs to retest based on the student's results in one or both content areas.

# Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents at the school level the number and percentage of students who obtained each score point for the individual Applied Skills items. This information can be used to determine whether the students in your school show strengths and needs on specific Applied Skills items and, therefore, in the Essential Skills that are assessed by these items.



# Highlights of the Applied Skills Frequency Distribution

- A Identifies the school and grade.
- **B** Identifies the item number and the skill being scored. Descriptions of each item, along with scoring rubrics and skills, are found in the *ISTEP+Teacher's Scoring Guides*.
- C Lists the total number of students tested in the school. The total number of students is obtained by adding the "N" counts in D and F.
- **D** Lists the number and percentage of students obtaining each score point.
- **E** Indicates the test date and identifies the corporation, county, and state.
- Lists by condition code the number and percentage of students with no response.

### **Condition Codes**

- A = Blank/no response
- B = Illegible/unable to score
- C = Written predominantly in a language other than English/unable to score
- D = Insufficient response/unable to score/copied from text
- E = Response not related to test question or scoring rule (English/language arts only)

**Note:** If the essay portion of Test 1 receives any of these condition codes **except condition code E**, the student will receive an "Undetermined" status for English/language arts.

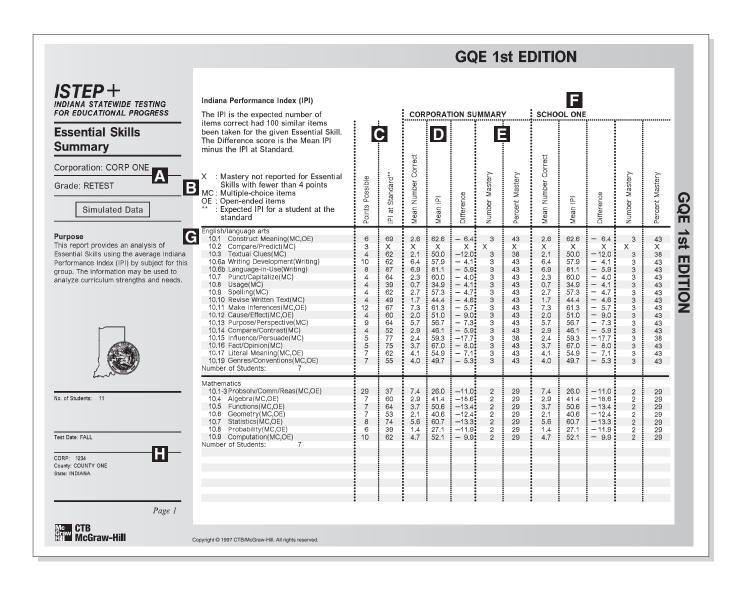
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# Reports for the Corporation Administrator

**Note:** All sample reports shown in this guide contain simulated student data only.

# Essential Skills Summary

The corporation Essential Skills Summary provides criterion-referenced information from the *ISTEP+* achievement tests, summarizing the performance of students for an individual school by grade. Schools may contact their Corporation Test Coordinator to request a copy of this report.



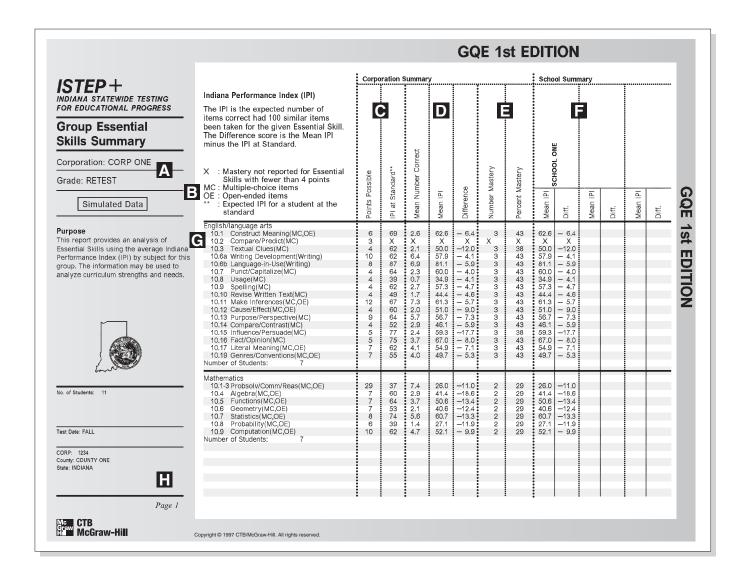
# **Reports for the Corporation Administrator**

# Highlights of the Essential Skills Summary

- A Identifies the corporation and grade.
- **B** Defines the symbols and abbreviations used in this report.
- Shows the number of score points that assess each Essential Skill and lists the Indiana Performance Index (IPI) at the standard.
- Lists the mean number of score points obtained by the students in the corporation by grade, the mean IPI obtained by the students, and the difference between the mean and standard IPI for each Essential Skill.
- Lists the number of students and the percentage of students who obtained mastery of each Essential Skill (i.e., achieved an IPI at or above the standard).
- **F** Identifies the name of an individual school (one school per page).
- **G** Lists Essential Skills for the grade.
- **H** Indicates the test date and identifies the corporation number, county, and state.

# **Group Essential Skills Summary**

The corporation Group Essential Skills Summary provides criterion-referenced information from the *ISTEP+* achievement tests, summarizing the performance of students for each school by grade. Schools may contact their Corporation Test Coordinator to request a copy of this report.



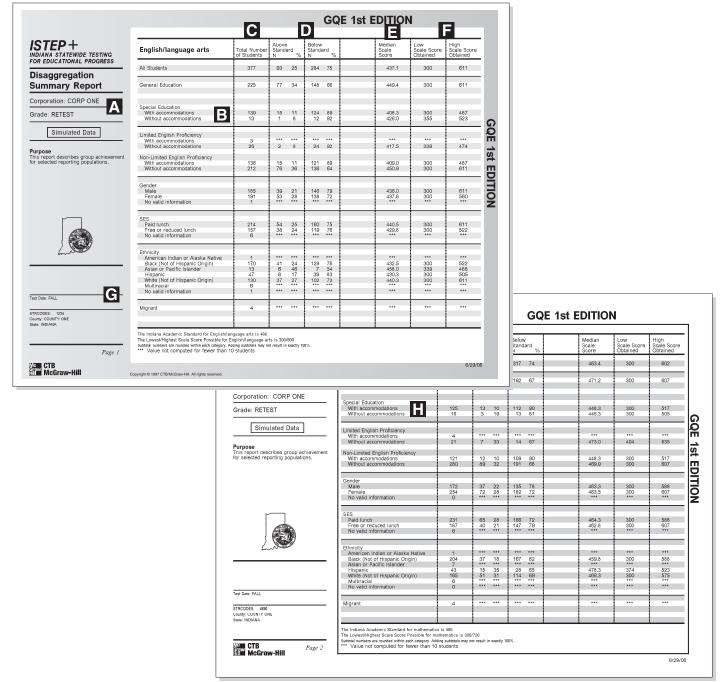
# Highlights of the Group Essential Skills Summary

- A Identifies the corporation and grade.
- **B** Defines the symbols and abbreviations used in this report.
- Shows the number of score points that assess each Essential Skill and lists the Indiana Performance Index (IPI) at the standard.
- Lists the mean number of score points obtained by the students in the corporation by grade, the mean IPI obtained by the students, and the difference between the mean and standard IPI for each Essential Skill.
- E Lists the number of students and the percentage of students who obtained mastery of each Essential Skill (i.e., achieved an IPI at or above the standard).
- **E** Lists schools alphabetically by name from left to right.
- **G** Lists Essential Skills for the grade.
- H Indicates the test date and identifies the corporation number, county, and state.

Note: A second copy of this report is included in the School Administrator Package.

### Disaggregation Summary Report

The Disaggregation Summary Report consists of two pages, one for English/language arts and one for mathematics. This report presents, by content area, the total number of students with scores identified as above the standard and below the standard. This information is given at the group level and describes achievement for selected reporting populations.

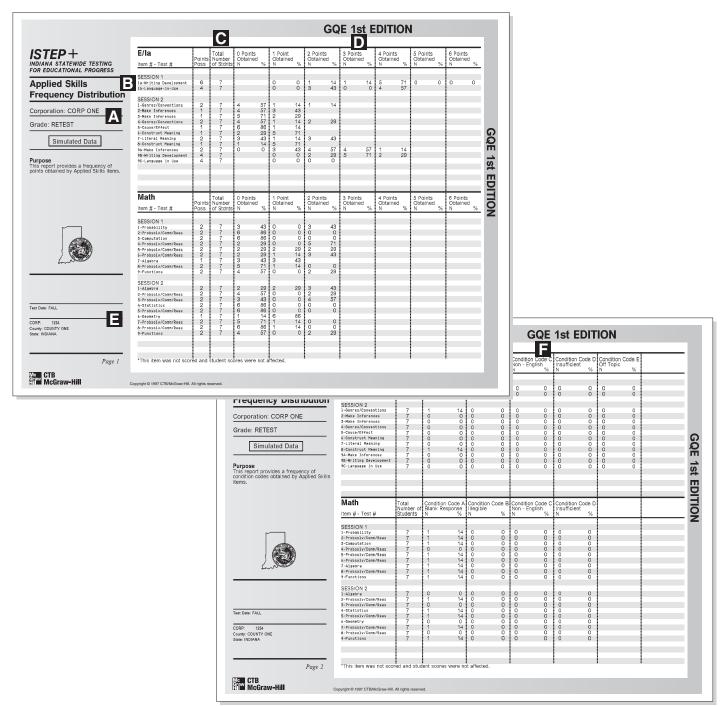


# Highlights of the Disaggregation Summary Report

- A Identifies the corporation and grade.
- **B** Identifies the selected reporting populations in the English/language arts content area.
- **C** Lists the total number of students tested in the school.
- Indicates the number and percentage of students above standard and below standard.
- Indicates the median scale scores, which are not computed for groups with fewer than 10 students.
- **F** Indicates the lowest and highest scale scores obtained.
- **G** Indicates the test date and identifies the corporation number, county, and state.
- H Identifies the subgroups in the mathematics content area.

### Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents at the corporation level the number and percentage of students who obtained each score point for the individual Applied Skills items. This information can be used to determine whether the students in your corporation show strengths and needs on specific Applied Skills items and, therefore, in the Essential Skills that are assessed by these items.



# Highlights of the Applied Skills Frequency Distribution

- A Identifies the corporation and grade.
- B Identifies the item number and the skill being scored. Descriptions of each item, along with scoring rubrics and skills, are found in the *ISTEP+Teacher's Scoring Guides*.
- C Lists the total number of students tested in the corporation. The total number of students is obtained by adding the "N" counts in D and F.
- **D** Lists the number and percentage of students obtaining each score point.
- Indicates the test date and identifies the corporation number, county, and state.
- Lists by condition code the number and percentage of students with no response.

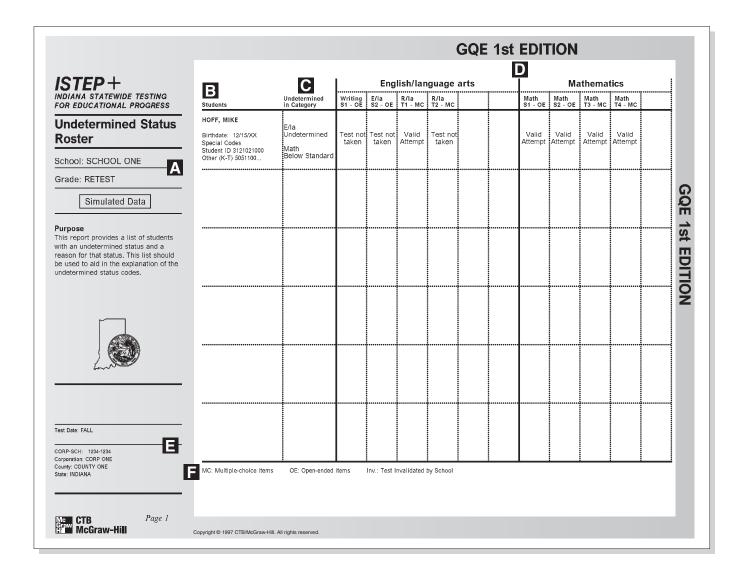
### **Condition Codes**

- A = Blank/no response
- B = Illegible/unable to score
- C = Written predominantly in a language other than English/unable to score
- D = Insufficient response/unable to score/copied from text
- E = Response not related to test question or scoring rule (English/language arts only)

**Note:** If the essay portion of Test 1 receives any of these condition codes **except condition code E**, the student will receive an "Undetermined" status for English/language arts.

# Undetermined Status Roster

This report provides, by school, a list of all students in the corporation who have an "Undetermined" status. Students who fail to complete one or more subtests in English/language arts or mathematics are listed as "Undetermined." The report indicates whether the subtest was not taken or was invalidated, thus explaining the reason for the "Undetermined" status.

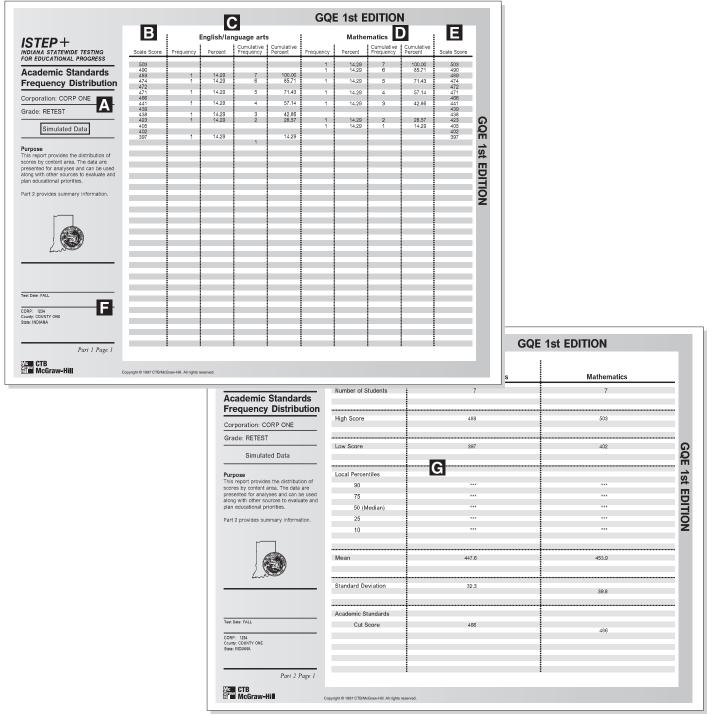


### Highlights of the Undetermined Status Roster

- A Identifies the school and grade.
- **B** Lists alphabetically students who have an "Undetermined" status in English/language arts and/or mathematics.
- C Indicates whether the "Undetermined" status is in English/language arts and/or mathematics.
- **D** Indicates which subtest was invalidated or not completed.
- Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- **F** Defines abbreviations used in this report.

### Academic Standards Frequency Distribution

The Academic Standards Frequency Distribution report provides the corporation administrator with the distribution of scale scores achieved by all the students tested in the corporation. The data are presented for analysis and can be used, along with other resources, to evaluate and plan educational priorities.



### Highlights of the Academic Standards Frequency Distribution

- A Identifies the corporation and grade.
- **B** Lists the scale scores achieved on the English/language arts test.
- Shows the number and percentage of students who obtained each scale score on the English/language arts test.
- D Shows the number and percentage of students who obtained each scale score on the mathematics test.
- **E** Lists the scale scores achieved on the mathematics test.
- Indicates test date and identifies the corporation number, county, and state.
- G Indicates the scale scores obtained by students at five local percentiles (90, 75, 50, 25, and 10).

## Reference

### **Glossary**

### **Criterion-Referenced Test**

A test that reports students' scores relative to the skills that make up the Indiana Academic Standards (see *Essential Skills*).

### **Essential Skills**

Specific skills within the larger category of Indiana Academic Standards measured by *ISTEP+* criterion-referenced questions.

### **Indiana Academic Standards**

To promote student academic achievement, the State Board of Education has adopted challenging standards for students in the following educational categories: reading comprehension, language mechanics/vocabulary, writing, mathematics basic skills, and mathematics applied skills. The standards are defined by a description of what a student should know and be able to do at the grade level completed by the student during the previous school year.

The Indiana Academic Standards define two general levels of knowledge and skill as follows:

At or Above the Standard (Pass): The student who scores at or above the Indiana Academic Standards in English/language arts or mathematics demonstrates mastery of these subjects.

Below the Standard (Did Not Pass): The student who does not score at or above the Indiana Academic Standards in all likelihood needs remedial assistance to be successful at the current grade level.

In addition, a category referred to as "Undetermined" is for learners whose *ISTEP+* scores for English/language arts or mathematics are incomplete. For these students, all or a part of the test was not taken or was considered invalid by the examiner.

### **Indiana Performance Index**

The Indiana Performance Index (IPI) is an indication of a student's performance on the individual Essential Skills that are measured by *ISTEP+*. It represents the expected number of items that the student would answer correctly if the student had taken 100 similar items for the specific Essential Skill.

### **Indiana Scale Score**

Student achievement levels relative to the Indiana Academic Standards are reported by *ISTEP+* scale scores. These three-digit, equal-interval scores are expressed on unique scales by content area (English/language arts and mathematics). *ISTEP+* scale scores typically will range from about 300 to about 850.

### Glossary

### Mastery

Mastery of an Essential Skill indicates that a student has achieved an Indiana Performance Index (IPI) number equal to or greater than the standard.

### Mean

The mean is the arithmetic average of a group of scores. It is calculated by adding the scores and dividing the sum by the number of scores.

### **Mean Raw Score**

The arithmetic average of the number of items answered correctly by a group of students.

### Median

The median is defined as the score below which 50% of the cases fall. The median and the 50th percentile are the same.

### **Number-Correct Scoring**

A scoring procedure that involves adding up students' scores on the test questions in a test.

### **Pattern Scoring**

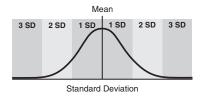
A procedure for assigning students' scale scores that involves considering the pattern of students' scores on the questions in a test as well as certain statistical characteristics of the questions.

### **Raw Score**

A student's observed score on a test—i.e., the number correct. While raw scores do have some usefulness, they should not be used to make comparisons between performances on different tests, unless other information about the characteristics of each test is known.

### Standard Deviation (SD)

A statistic that indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within two SDs of the mean. In almost any shaped distribution, all scores will be within five SDs of the mean score.



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### Glossary

### **Standardized Test**

A test administered in accordance with explicit directions for uniform administration.

### **Test Section**

A subtest of a given content area.

### **Undetermined**

A scoring category for students whose *ISTEP+* English/language arts or mathematics scores are incomplete (i.e., all or part of the test was not taken or was considered invalid by the examiner).

# **Sample Letter to Parents**

### Dear Parent:

All public school students who are eligible to participate are required to meet the GQE – First Edition standard in order to qualify for a state-recognized diploma. Students are provided with five opportunities to pass this test—in the fall of Grade 10 and in the fall and spring of Grades 11 and 12.

Your son or daughter participated in the *ISTEP+* Fall 2006 GQE – First Edition administration in English/language arts and/or mathematics. A Student Report is available for your review.

The front of the Student Report shows how your child did compared to the Indiana Academic Standards. The standards are the required skills that schools must teach to their students. This report shows whether your child passed or did not pass the English/language arts and mathematics parts of the test. The report also shows how your child did on each of the English/language arts and mathematics skills.

The back of the Student Report shows how your child did on each of the Applied Skills items. These are the questions that require students to write a paragraph or write the answer to a question instead of simply choosing the answer to a multiple-choice question. Your child's answers to these Applied Skills items will be available for your inspection at the school in December 2006.

Your child's school is the best source of information if you have questions about your child's *ISTEP+* scores.

Sincerely,



The **McGraw·Hill** Companies

# **Guide to Test Interpretation**

**GQE – First Edition** 



Indiana Department of Education